

element 408. FIGS. 1A, 1F, 1G, 1H, 2A, 2B, 2C, 2D, 2E, 2F, 3A, 3B, 3C, 3D, and 6D show embodiments of the first configuration option, where the loop forming device (e.g., 14) is located outside of the handle.

FIG. 9B shows a general view of the second configuration option where the loop forming device 404 is located outside of the handle 400 and the elongated element is comprised of a first cord 412 attached to the loop 414 (or second cord). FIGS. 4A, 4B, 4C, 5A, 5B and 5C show embodiments of the second configuration option where the loop forming device (e.g., 144 146 148) is outside the handle and the elongated element is comprised of a first cord 140, a loop 142 and a loop forming device. The first cord is attached to the loop 142 (or second cord) using a loop forming device (e.g., means).

FIG. 9C shows a general view of the third configuration option where the loop forming device 404 is inside the handle 400 and the elongated element 408 forms a loop. FIGS. 6A, 7A, 7B, 7C, and 7D show embodiments of the third configuration option where the loop forming device is inside the handle (10).

FIG. 9D shows a general view of the fourth configuration option without a loop. FIG. 9D shows a handle 400 attached to an elongated element 420 424. An optional soft flexible element 424 surround portions of a cord 420. FIGS. 8A, 8B, 8C and 8D show embodiments of the fourth configuration option without loops.

First Configuration Option With The Loop Forming Device Outside The Handle

Referring to FIG. 1A, a preferred embodiment is shown where the loop forming device (e.g., 14) is located outside of the handle 10. The unit 11 is comprised of a handle 10, an elongated element (e.g., cord) 12 having a first loop 15, and a cord coupler 14. The cord coupler 14 is preferably metal. The embodiment shown in FIG. 1A also includes a loop forming device (e.g., 14) for forming a loop 15. The loop is preferably formed from a portion of the elongated first element 12.

Handles

In a preferred use, the units are designed to be held in the hands of a user in the same fashion as holding the handles of a jump rope. The user then rotates their hands and

twirls the units in a similar fashion as a traditional jump rope. In closer detail, the handle 10 of each unit has opposite first and second ends. Ideally, the handle 10 is contoured to comfortably fit a hand of a user. In this ideal embodiment, the handle 10 preferably has a resiliently compressible outer layer therearound. Ideally, the outer layer 16 of the handle 10 comprises a resiliently compressible foamed rubber.

The handle is preferably cylindrically shaped with a hole in a bottom end where the cord can pass through.

Referring to FIG. 1A, the elongated element (e.g., cord) is attached to the handle 10. The elongated element can be attached to the handle by any suitable means or structure. For example, by a link or fastener or by passing the elongated element through an opening in the handle 10. The elongated element (e.g., cord) 12 is preferably rotatably attached to the handle 10. The cord 12 is preferably attached to the handle by a handle attaching device.

Elongated Element

The elongated element can be a cord, rope, line, twine, or any other similar object or combination of objects or cords. The elongated element could comprise a cord or several cords. The elongated element could be joined with other elements (such as loop forming devices, intermediate pieces or clips, connectors, rings, other cords or elongated elements, etc.). The elongated element can have a loop. A cord can be made from a variety of materials, including rope, leather, synthetic or simulated leather, plastic or beaded roped (e.g., a thin inner nylon rope with outer casing made of plastic beads). The cord can be several individual cords joined or connected together. Cords could be made from materials not commonly used in jump ropes today, including rubber cords or nylon straps. In addition, cord materials could be a combination of types, such as a beaded rope including a thin nylon rope with plastic outer casing beads combined with rubber outer casing portions. The rubber portion is preferably positioned at the bottom of the loop and provides a safety function in case the loop hits the user or something else. Also, the rubber portion maintains a spread-open "U" shape at the end of the loop which is visually appealing and which provides increased safety by keeping the loop bottom spread open and thus spreading the impact if the device hits someone.

1 Loop Forming Devices

2 FIG. 1A shows the first loop formed by attaching a first section of the cord 12
3 to a second section of the cord. The cord can be attached back to itself using a cord coupling
4 device or loop forming device. For example, FIG. 1A shows a cord coupler 14 which is
5 preferably a metal piece that is crimped or stamped to hold multiple cord portions together.
6 Other loop forming devices or cord attachment devices can include spring shaped metal couplers,
7 or wire rings (e.g., wire wrapped around the cord portions), tape, or knots.

8 The cord can be attached back onto itself directly or indirectly. Directly can
9 mean that that cord is in contact with another section of the cord. Indirectly can mean that the
10 cord is joined to an intermediate piece (or pieces) and is joined back to a section of the cord. The
11 cord can be indirectly joined to itself by a faster, cord coupler, loop and snaphook fastener, hook,
12 annular piece (e.g., ring), hoop and loop fastener, cord knot, screw together fastener, or rope loop
13 to rope loop connector.

15 Descriptions of Embodiments With the First Configuration Option

16 FIG. 1B shows a cross sectional view of a preferred embodiment of the handle
17 10. FIG. 1B shows the handle comprised of two pieces 24 26: a lower piece 24 having an
18 opening through which the cord 12 passes; and an upper piece 26. The lower piece 24 can have an
19 internal thread and the upper piece 26 can have an external thread that can be screwed together.
20 Preferably the upper piece 26 has a closed top. The handle can have an outer grip material 16
21 such as foam rubber. The cord 12 is preferably attached to the handle 24 by a lipped or flanged
22 metal handle attaching device 20 and optional ball bearings 30.

23 FIG. 1C shows another embodiment of the cord coupling device (e.g., loop
24 forming device) comprised of a spring shaped metal coupler 34.

25 FIG. 1D shows another embodiment of the cord coupling device (e.g., loop
26 forming device) comprised of a ring shaped metal coupler 42.

27 FIG. 1E shows another embodiment of the cord coupling device comprised of
28 a tape coupler 38.

29 FIG. 1F shows another embodiment of the cord coupling device where a
30 second shorter cord forms a hoop 46 (e.g., length of cord that is connected back onto itself with
31 an inner opening) and is fastened with metal coupler 14 that creates the loop (e.g., 15) in the